

(12) UK Patent Application (19) GB (11) 2 027 469 A

(21) Application No 7830501

(22) Date of filing

20 Jul 1978

(23) Claims filed

19 Jul 1979

(43) Application published

20 Feb 1980

(51) INT CL³ E04D 1/30

(52) Domestic classification

E1B 3A1A 3AX 3C 3F

F4V A1A A1C A1E

(56) Documents cited

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(58) Field of search

E1B

F4V

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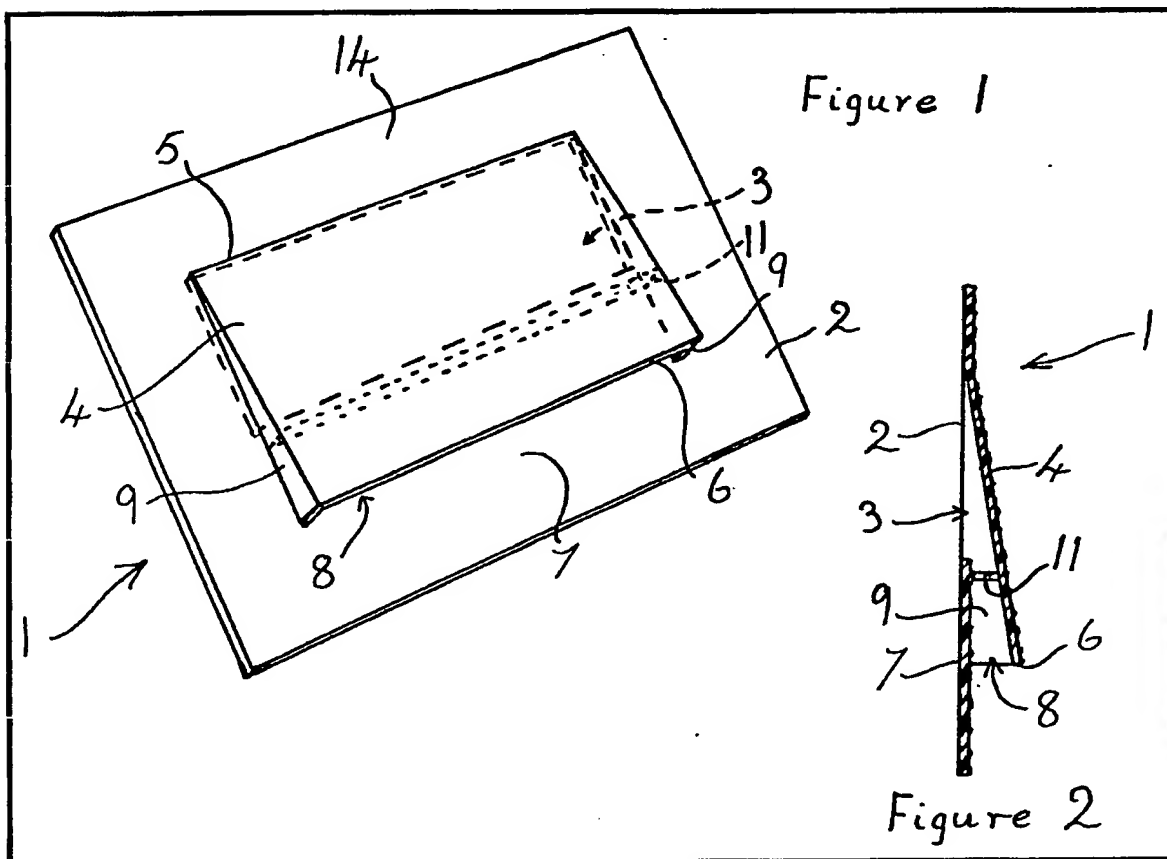
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ture while allowing air to pass through the ventilation gap and ventilation aperture to ventilate the roof-void.

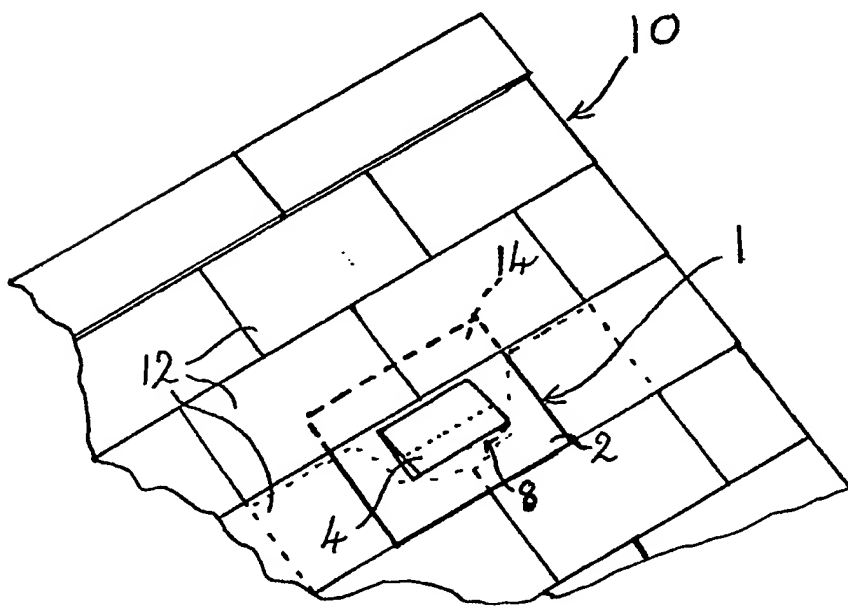
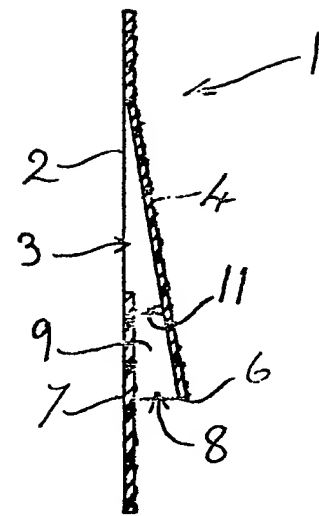
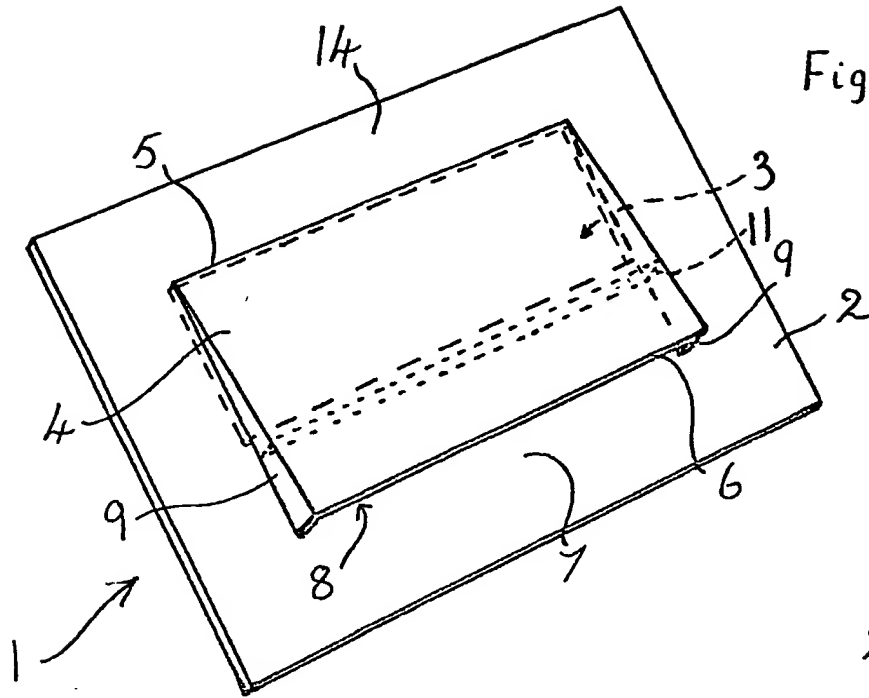
(54) Roof ventilation tile

(57) A roof ventilation tile 2, adapted to be fitted over an opening in a pitched roof to be sealed with a bituminous composition, has an upper marginal portion 14 to be inserted beneath existing roof tiles or slates above the opening, ventilation aperture 3 being covered by a raised cover portion 4 which overhangs a lower portion 7 of the tile beyond the aperture and is spaced from the said lower portion by a ventilation gap 8, such that in use of the device the cover deflects rain water falling on, or running over, the device from the ventilation aper-



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SPECIFICATION

Roof ventilation device

- 5 The present invention relates to a roof ventilation device.

Most pitched rooves have a timber framework covered by overlapping layers of slates or tiles which, in time, become dislodged or
10 broken and require replacement. The replacements cannot, however, be nailed into position as in a new roof and are clipped into place by means of tingles.

Eventually, old rooves have so many loose
15 or clipped slates or tiles that they cannot be repaired satisfactorily without treatment of the whole roof which, preferably, involves total stripping and replacement of the roof covering. This is an extremely expensive operation and an alternative, and increasingly common,
20 treatment is the coating of old rooves with a bituminous composition which provides a water-tight seal and effectively glues any loose or clipped slates into position. Such bitumen
25 treatment also ensures an air-tight seal, preventing the usual ventilation of the roof-void through gaps between the overlapping slates or tiles.

It is not generally appreciated that such
30 ventilation is, in fact, beneficial; it has been found that there is far greater danger of the growth of dry-rot fungi in the timbers of bitumen-treated rooves than in well ventilated roof voids. An object of the present invention is, therefore, to provide a ventilation device
35 particularly for use in a tiled roof coated with a bitumen or like composition. In the context of the present specification the terms "tiled roof" and "tiles" are understood to include a
40 "slated roof" and "slates" respectively.

According to the present invention, there is provided a roof ventilation device comprising a tile adapted to be fitted over an opening in a pitched, tiled roof, the tile having an upper
45 marginal portion adapted to be inserted beneath an existing roof tile or tiles above the opening, and having a ventilation aperture and a raised cover portion sealed to the tile around its periphery except along a lower
50 edge which overhangs a lower portion of the tile beyond the aperture and which is spaced from the said lower portion by a ventilation gap, such that in use of the ventilation device in a roof covering, the cover deflects rain
55 water falling on, or running over, the device from the ventilation aperture while allowing air to pass through the ventilation gap and ventilation aperture to ventilate the roof-void.

Such a device could be made in any desired
60 shape corresponding to that of the existing tiles in the roof to which it is to be fitted and would be fitted into the roof covering in the usual manner for a replacement slate, being clipped into position by means of a tingle. The
65 device may be fitted to a roof which has

already been covered with bitumen or which is to be coated, a hole being made in the roof covering, if necessary, by the removal of one or more existing tiles or parts of tiles.

- 70 The ventilation device of the present invention preferably has a rough upper surface for receiving a coating and it may be primed with suitable priming paint ready for receiving the bitumen coating, or a priming coat and a
75 bituminous composition may both be applied after insertion of the device in a roof covering.

The cover portion of the ventilation device of the present invention preferably overhangs the lower edge of the ventilation aperture
80 substantially, in its position of use, so as to prevent penetration of driving rain to the aperture. A perforated screen may be inserted across the ventilation gap to prevent birds from entering the roof-void through the ventilation aperture.
85

A ventilation device according to the invention may be made from any suitable material such as the fired earthenware usually used for tiles but is preferably made from a plastics
90 material, such as a fibre-glass reinforced plastics resin. In either case, the device is preferably moulded in one piece.

According to a further aspect of the invention there is provided a pitched, tiled or slated
95 roof incorporating a ventilation device as described above. Several such devices would in fact preferably be incorporated to provide adequate ventilation in a large roof.

One embodiment of the present invention
100 will now be more particularly described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a ventilation device according to the invention;

105 *Figure 2* is a cross-sectional view of the device of Fig. 1, and

Figure 3 is a perspective view of part of a slated roof incorporating the ventilation device of Figs. 1 and 2.

110 Referring to the drawings a roof ventilation device made from a glass-fibre reinforced plastics resin is shown generally indicated 1.

The device 1 comprises a rectangular tile 2, approximately 20 inches wide by 14 inches in
115 depth, having a rectangular ventilation aperture 3, approximately 12 inches wide by 5 inches in depth, where in each case, the width corresponds to a horizontal measurement along a roof surface and the depth to a
120 measurement along the line of greatest slope of the roof in the position of use of the ventilation device, as shown in Fig. 3, in which the device forms part of a slated roof covering, generally indicated 10.

125 The device 1 further includes a cover 4 for the aperture 3, comprising a rectangular sheet, approximately 12 inches wide by 9 inches in depth sealed along a longer edge 5 to the upper edge, in the position of use of
130 the device 1, of the aperture 4. The cover 4 is

inclined to the plane of the tile 2 at a small angle, the lower edge 6, in use, being spaced from a lower portion 7 of the tile 2 by a ventilation gap 8, approximately $\frac{3}{4}$ inch wide.

5 The side edges of the cover 4 are sealed to the tile 2 by triangular walls 9.

The ventilation device 1 also has a mesh 11 extending across the ventilation gap 8 adjacent the lower edge of the aperture 2.

10 The ventilation device 1 is moulded in one piece such that its upper surface, in use, is rough. The upper surface is also painted with a priming coat suitable for receiving a coating of a bitumen composition.

15 In use of the ventilation device 1, a hole is made in the roof 10 by removal of parts of the existing slates 12, and an upper portion 14 of the tile 2, above the aperture 3, is inserted beneath the lower edges of the slates 12 above the hole, the side edges of the tile 2 overlapping respective slates 12 adjacent the hole and the lower portion 7 overlapping the slates 12 below the hole. The device 1 is clipped into position by a tingle (not shown) in the usual manner for replacement slates.

25 In this position, the device 1 forms part of the roof covering but allows ventilation of the roof-void through the ventilation gap 8 and the ventilation aperture 3. The cover 4 is, however, so formed as to deflect rain water falling on, or running over, the tile 2 on to the lower portion 7 of the tile, preventing penetration through the ventilation aperture 3 into the roof-void. The overhang of the cover 4 over the lower portion 7 of the tile 2 also helps to prevent penetration of driving rain to the aperture 3, while the mesh 11 prevents birds from entering the roof-void.

40 After insertion of the device 1 in the roof covering, the device 1 and surrounding area may be coated with a bituminous composition to water-proof and stabilize the roof covering, the coating also being applied to the lower portion 7 of the tile beneath the cover 4, but the ventilation gap 8 would be left open to ensure that air could still penetrate through the gap 8 and aperture 3 to ventilate the roof-void and discourage the growth of dry rot fungi in the roof timbers. After such treatment the device 1 would be scarcely noticeable in the roof covering.

55 Although the device 1 described above is suitable for a slated roof, a similar device could be made in any shape or size corresponding to the shape and size of existing slates or tiles on a roof in which it is to be incorporated; the tile portion of the device 1 need not, for example, be planar with a rectangular aperture but may be curved to conform with the curve of existing tiles, the aperture being of any suitable shape and the cover being curved out of the plane of the tile. The mesh screen may be integral with the device or could be made separately of any suitable material, and fastened in position by

any convenient fastening device.

CLAIMS

1. A roof ventilation device, comprising a tile having an upper marginal portion adapted to be inserted beneath an existing roof tile or tiles above an opening in a pitched, tiled roof, the tile having a ventilation aperture and a raised cover portion sealed to the tile around its periphery except along a lower edge which projects over a lower portion of the tile beyond the aperture, such that in use of the device in a tiled roof the cover deflects water falling on, or running over, the device from the ventilation aperture while allowing air to pass through the aperture and the roof opening to ventilate the roof void.

2. A roof ventilation device as claimed in Claim 1, in which a perforated screen is provided across the gap between the cover portion and the lower portion of the tile.

3. A roof ventilation device as claimed in Claim 1 or Claim 2, in which the device has a rough upper surface for receiving a surface coating.

4. A roof ventilation device as claimed in Claim 3, having a coating of priming paint suitable for receiving a coating of a bituminous composition.

5. A roof ventilation device as claimed in any preceding Claim made from a plastics material.

6. A roof ventilation device as claimed in Claim 5, in which the plastics material is a fibre-glass reinforced plastics resin.

7. A roof ventilation device substantially as herein described with reference to, and as shown in the accompanying drawings.

8. A pitched, tiled roof incorporating a roof ventilation device as claimed in any preceding claim.

Printed for Her Majesty's Stationery Office
by Burgess & Son (Abingdon) Ltd.—1980.
Published at The Patent Office, 25 Southampton Buildings,
London, WC2A 1AY, from which copies may be obtained.